This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1-5.   (Cancelled)

6.   (Currently Amended) A method for reserving, on a node of an Ethernet bus type communication network having parallel connections to nodes, a fraction of bandwidth of a digital bus during a cycle, the method comprising:

circulating a token between all nodes of the network so as to enable all nodes of the network to send in turn a data packet over the bus according to a sequence defining a chronological order of passage of the token between all nodes during a cycle, wherein the chronological order of passage of the token between all nodes of the network is defined by a master node of the network;

wherein the fraction of bandwidth reserved for the node of the network corresponds in the sequence to a certain number of occurrences of passage of the token via the node, and

wherein the master node, on initialization of the network, constructs a first table, stores in said first table for each node of the network information indicative of the fraction of bandwidth reserved for each node, and on the basis of the first table, constructs and transmits to each node a second table storing the sequence defining the order of passage of the token between the nodes of the network that reserved a fraction of bandwidth, and

wherein each node that reserved a fraction of bandwidth transmits the token via the Ethernet network to a next node that reserved a fraction of bandwidth in the sequence, the transmission of the token is received by all nodes in parallel such that each node of the network follows circulation of the token.

7.   (Previously Presented) The method according to Claim 6, in which the occurrences of passage of the token via the node of the network are distributed in the sequence among the occurrences of passage of the token via other nodes of the network.

8-10.   (Cancelled)

11.   (Currently Amended) A communication device designed to be connected to a digital bus communication network, the device comprising:

        a connection as a master node to the network; and

        a token, wherein the master node is configured to circulate the token between all nodes of the network during a cycle, and wherein the master node is organized to construct a first table storing, for each node of the network, information indicative of a fraction of the bus bandwidth reserved for each node of the network and to construct and to transmit to each node a second table storing a sequence defining a chronological order of passage of the token between nodes that reserved a fraction of bandwidth during a cycle, the fraction of the bandwidth reserved for any one node of the network corresponding in the sequence to a certain number of occurrences of passage of the token via the one node, and wherein each node that reserved a fraction of bandwidth transmits the token to a next node that reserved a fraction of bandwidth in the sequence, the transmission of the token is received by all nodes in parallel such that each node of the network follows circulation of the token.

12.   (Currently Amended) A communication device designed to be connected to a digital bus communication network, the device comprising:

        a connection as a node to the digital bus communication network; and

        a table received from a master node of the network storing a sequence defining a chronological order of passage of a token between the nodes that reserved a fraction of bandwidth during a cycle, the fraction of the bandwidth reserved for a node of the

network corresponding in the sequence to a certain number of occurrences of passage of the token via the node, wherein the node that reserved a fraction of bandwidth transmits the token to the next node that reserved a fraction of bandwidth in the sequence so that each node of the network can follow the chronological order in the sequence, and wherein each node that reserved a fraction of bandwidth transmits the token to a next node that reserved a fraction of bandwidth in the sequence, the transmission of the token is received by all nodes in a parallel manner such that each node of the network can follow circulation of the token.